

NOLO

Nolo's Guide to
**Provisional
Patent
Applications**



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Congratulations—you invented something! So what’s next?

If you’re like most inventors, your first concern is to make sure nobody can steal your great idea.

There used to be only one foolproof way to put the world on notice that you claimed ownership of an invention: filing a patent application. Getting a patent gives you the right to prevent others from making, using, or selling your invention for a limited period of time. But this protection comes at a price: You can expect to spend anywhere from \$5,000 to \$10,000 or more to file a patent application through an attorney. And because fewer than 3% of all patented inventions ever make any money, you might never see a return on your investment. This puts some inventors in a bind: If they don’t file for a patent right away, someone else might steal their idea. But if they file too soon, they risk spending money on legal protection for an invention that may not be commercial.

Wouldn’t it be great if there was an inexpensive way to establish an official claim to your invention before filing for a patent—so you could figure out whether your invention would turn a profit before you pay to protect it?

Well, there is—the provisional patent application.

Nolo’s Guide to Provisional Patent Applications explains the benefits—and the disadvantages—of filing a provisional patent application. After reading it, you may decide that the provisional patent application is not for you. You may determine that your invention lacks commercial potential or is not patentable. Regardless of whether you ultimately file a provisional patent application, this guide will help you see your invention in a wider context—in relation to patent law, licensing opportunities, and other inventions within your field—rather than just as an isolated creation on your workbench.



CAUTION

A provisional patent application will not, by itself, get you a patent. In order to patent your invention and obtain some of the benefits listed above, you must file a regular patent application—a more complex document—and the patent must be approved by the United States Patent and Trademark Office. The provisional patent application is a simple, inexpensive strategy for preserving your rights while you decide whether to file for a regular patent. ***If you want a patent, you will have to file a regular application within a year after you file your provisional application.*** You won’t automatically lose patent rights if you fail to file a regular patent application within a year after you file the provisional application. But you will lose the benefits we describe in this guide—for example, the earlier filing date and the right to claim “patent pending” status. You can still file a regular patent and acquire patent rights to your invention, as long as you did not publish information about your invention or offer it for sale more than a year before you filed the regular patent application.

Patent 101

What is a patent?

A patent is a grant by the U.S. Patent and Trademark Office (USPTO) that allows the patent owner to exclude others for a limited period of time from making, using, or selling an invention (or importing it into the U.S.).

How do inventors benefit by holding a patent?

Most patent owners make arrangements with an existing company to commercialize an invention. Typically, the arrangement takes the form of a license agreement, under which a company (the licensee) is authorized to commercially exploit the invention in exchange for paying the patent owner royalties for each invention sold. Sometimes the patent is sold outright (an assignment) to the company for a lump sum payment.

What kinds of patents may be issued?

The U.S. Patent and Trademark Office (USPTO) issues three types of patents:

- **Utility patents.** New, nonobvious, useful inventions may qualify for a utility patent. When we refer to a patent in this guide, we are referring to a utility patent.
- **Design patents.** New and original designs that ornament a manufactured article can qualify for a design patent. For example, a new shape for a car fender, bottle, or flashlight that doesn't improve its functionality would qualify.
- **Plant patents.** The least frequently issued type of patent are plant patents—granted for any asexually or sexually reproducible plants (such as flowers) that are both novel and nonobvious.

What types of inventions qualify for a utility patent?

Most types of inventions (the term we'll use for innovative ideas) qualify for a utility patent if they offer something new (are novel) and are particularly clever (that is, nonobvious). However, some types of inventions do not qualify for a patent, no matter how nonobvious they are. For instance, mathematical formulas, newly discovered laws of nature, and newly discovered substances that occur naturally in the world traditionally have been considered to be unpatentable.

What is the procedure for applying for a utility patent?

To apply for a U.S. patent, the inventor files an application with the USPTO. For the purpose of obtaining an early filing date, the inventor may file what is known as a Provisional Patent Application (PPA). The only requirement for a PPA is that it must

adequately describe how to make and use the invention. However, to obtain a patent, the inventor must file a formal patent application (within one year of the PPA date if one is filed) that follows technical conventions and contains words and drawings to clearly: (1) demonstrate how to make and use the invention, (2) explain why the invention is different from all previous and similar developments (known as the prior art), and (3) precisely describe what aspects of the invention deserve the patent (the patent claims). This patent application will be the subject of much discussion between the applicant and the USPTO patent examiner.

When does a patent expire or otherwise come to an end?

The most common reason for a patent to come to an end is that the statutory period during which it is in force expires. For utility and plant patents, the statutory period is 20 years after the application date. For design patents, the statutory period is 14 years from date of issuance. Another common reason why patents expire is that the patent owner fails to pay required maintenance fees. Usually this occurs because attempts to commercially exploit the underlying invention have failed and the patent owner chooses not to throw good money after bad.

Once a patent has terminated for any reason, the invention described by the patent falls into the public domain: It can be used by anyone without permission, and the patent owner has no more rights to the invention than any member of the public. The basic technologies underlying television and personal computers are good examples of valuable inventions that are no longer covered by in-force patents.

The fact that an invention is in the public domain does not mean that subsequent developments based on the original invention are also in the public domain. Rather, new inventions that improve public domain technology are constantly being conceived and patented. For instance, televisions and personal computers that roll off today's assembly lines employ many recent inventions that are covered by in-force patents.

What is a Provisional Patent Application?

A provisional patent application consists of text (referred to as the specification) and drawings that describe how to make and use your invention. It's a short document—often five to ten pages—written in plain English, with none of the arcane language used in regular patent applications. You do not need to hire a draftsman to prepare formal drawings. You can furnish informal drawings as long as they—in conjunction with your written statement—show how to make and use your invention.

The Advantages of Filing a Provisional Patent Application

Filing a provisional patent application confers a number of benefits:

- **You can take up to a year to assess whether your invention will sell before committing to the higher cost of filing and prosecuting (the official term for “pursuing”) a regular application for a patent.** Once you file the provisional patent application, you will have almost a year to assess the commercial potential of your invention before you have to prepare a regular patent application. Although 11 or so months may not give you enough time to obtain a firm commitment from a manufacturer or distributor—many companies take months, if not years, to make such decisions—it should be enough time to make a preliminary assessment about commercial potential. If everybody you’ve shown it to says “no thanks” and backs away from you slowly, there’s probably no reason to bother filing a regular patent application
- **You can use a “Patent Pending” notice to deter others from copying your invention.** Putting those words on the bottom of your invention or in an advertisement sends a message that you’ve filed an official claim on the invention. This marking often deters manufacturers from stealing your invention—they do not want to pay for creating tooling or molds to produce the invention if they know you may get a patent for it. Keep in mind that marking your invention “patent pending” doesn’t give you any patent rights. You cannot stop anyone from copying, selling, or using your invention during this period. Patent rights do not kick in until after your regular patent application is approved. The label simply lets the world know that you have staked a patent claim and are waiting for the patent to issue.
- **You can avoid building and testing your invention.** The U.S. follows a “first to invent” rule. If there is a dispute between you and another inventor, the person with the earliest “date of invention” gets the patent. The patent laws establish your date of invention as either: the date when you “reduced your invention to practice”—that is, the date on which you could prove that it actually works; or the date you conceived of your invention, provided that you diligently reduced it to practice soon after. There’s an easy way to prove reduction to practice. It’s known as “constructive reduction to practice” and you accomplish it by simply filing a provisional patent application (or a regular patent application). If you do a constructive reduction to practice, your date of invention is the date you filed your provisional patent application. In other words, if you can’t build and test your invention, you can still establish your date of invention without spending the time and money required to file a regular patent application. There is a potential downside to using the provisional patent application for constructive reduction to practice. Without a working prototype, you may not be able to convince others to license and manufacture your invention. If you really want to market your invention, you will probably have to create a prototype eventually.

- **You establish an official United States patent application filing date for the invention.** Filing a provisional patent application gives you an official patent filing date. As explained above, the USPTO awards patents to the first to invent, not the first to file a patent application. But don't let this rule lull you into complacency—if you want a patent, you should get to the patent office as early as possible. According to many patent experts, the first person to file at the USPTO will often win the battle over who was first to invent something (known as “priority”).
- **Your application is preserved in confidence.** If you're like most inventors, you have a secretive streak. And that makes sense—after all, if word got out about your invention, somebody else might claim rights or instigate a dispute at the USPTO. Because of this, most inventors won't disclose anything about their inventions, except under the terms of a signed nondisclosure agreement. The provisional patent application guards your secrecy while preserving your rights at the USPTO. Nobody at the USPTO will read your provisional patent application unless (1) you file a regular application within 12 months, and (2) a dispute arises as to your rights. Otherwise, the provisional patent application will sit safely tucked away in a file cabinet.

Cautions

After reading about the advantages, you're probably ready to sharpen your pencil and get to work. But before you do, there are some potential drawbacks you should be aware of.

- **Inaccuracy will undo your protection.** If your provisional application fails to explain how to make and use your invention, you can't count on it for any of the purposes described in this guide—for example, an early filing date, proof of invention, or constructive reduction to practice. Leaving out an element of your invention or failing to explain all of the operating elements could be fatal inaccuracies. Other inaccuracies include using faulty supporting data or drawings that don't match the written description. Deliberate inaccuracies will also destroy your patent hopes—for example, if you are not the true inventor or you filed even though you knew the invention did not qualify for a patent.
- **If you modify your invention, you'll have to file a new provisional patent application.** If you modify the manner in which your invention operates or add any new technical information that was not in the provisional application (known as “new matter”), you cannot rely on the date of the provisional patent application for such new matter. You can file a new provisional application that reflects these changes. Adding, subtracting, modifying parts, or changing the structure or operation of the parts would all qualify as modifications. You will not be able to rely on your provisional patent application date for these new developments.

- **You must file foreign patent applications within a year.** You must file patent applications in any country in which you seek protection within one year of your provisional patent application's filing date. If you fail to file for foreign patent protection within one year of that date, you will lose any right to obtain the benefit of your provisional patent application's filing date in foreign countries. If you miss the one-year deadline, you can still file in foreign countries—provided you have not sold, publicly used, or published your invention before the foreign filing date.

Seven Questions to Ask Before Filing

Unfortunately, not every invention is patentable and not every patented invention is commercial (that is, can be sold at a profit). There's no reason to file a provisional patent application for an invention that will never acquire a patent or earn money. Ask yourself these seven questions—and file a provisional patent application only if your answer to all of them is “yes.”

Keep in mind that even if you can't acquire patent, other forms of legal protection—including copyright, design patent, trade secret, or trademark law—may protect your idea. You will find a brief explanation of each of these concepts at the end of this guide.

Is it commercial?

Turning a discovery or creative idea into a product that can be sold (known as “product development”) is a long process. For example, ten years passed between the date Stephanie Kwolek discovered aramid fiber and the date DuPont first used it in Kevlar bullet-resistant vests. One of the primary benefits of filing a provisional patent application is to assess the commercial potential of your invention before you file a regular patent application. Among the commercial factors you might consider are:

- **Cost:** How much will the parts cost? How much will assembling the parts cost? How much will the packaging cost?
- **Competition:** Are opposing products firmly entrenched? Is there a niche in the market just waiting to be filled by your invention?
- **Ease of use:** How easy is it to obtain results from your invention?
- **Demand:** How many people are really going to want your creation? As to this factor, you may wish to do your own research on the reactions of family and friends, as described below.

There are many other ways to measure your chances of commercial success and we discuss them in the Nolo books, *Patent Pending in 24 Hours* and *Patent It Yourself*.

Did you invent it?

This may not seem like much of a challenge for most inventors. But you can only obtain a patent if you—not your uncle or a coworker—invented something. So, if your late uncle is the person who really thought up and perfected “your” invention, you’re not entitled to the patent (although your late uncle’s estate can file for it). If you invented it with someone else, then you are a co-inventor.

How do you tell if someone else is a co-inventor? That can get tricky. A co-inventor is anyone who makes a contribution to at least one novel and nonobvious concept that makes the invention patentable. In patent drafting terms, the co-inventor must contribute something substantial to one of the patent claims.

Do you own it?

The primary ownership that arises is whether your employer, not you, owns the rights to an invention. This may be the case if:

- you signed an employment agreement that includes provisions requiring you to give up all rights in advance of creating an invention (commonly referred to as preinvention assignments)
- you were hired specifically for the purpose of creating an invention, or
- your employer acquires a “shop right”—a limited right to use the innovation.

If you are not the owner, you should not file a patent application unless you are doing so under the authorization of the patent owner.

Is it useful?

Assuming that your invention does something—that is, it produces a result or makes a product—you should have little difficulty establishing usefulness. On those rare occasions when the USPTO rejects an invention for being “not useful,” it relies on common-sense reasons—for example, a drug is not safe to use, the invention causes a nuclear explosion, or the purpose of the invention is illegal.

Does it fit in one of the patent “classes”?

To be eligible for a patent, an invention must fall within one of five classes defined by statute. If you have a useful invention, you probably won’t have any problem demonstrating that your invention fits within one—and maybe two—classes. Even if you have difficulty classifying your invention, patent examiners liberally construe this requirement and may even assist you in making the final determination. The five classes are:

- **Processes and methods.** The USPTO defines processes and methods as one or more steps for doing or making something. For example, the patent for pasteurization is a process and method patent because it describes the steps required to remove bacteria in liquids.
- **Machines.** The USPTO defines machines as devices or things that accomplish a result by the interaction of parts. For example, the Zamboni Ice Rink Resurfacing Machine travels across ice rinks with spinning blades and ice conveyors, shaving and smoothing the surface. An electrical circuit or a software program can be a patentable machine if it involves the interaction of devices that create a result.
- **Articles of manufacture.** The USPTO reserves the articles of manufacture category for objects that accomplish a result without movable parts (such as a pencil or a garden rake) or objects with movable parts that are incidental (such as a safety pin or folding chair).
- **Compositions of matter.** The USPTO classifies chemical combinations or combinations of other materials that produce a result as compositions. A familiar example is Roy Plunkett’s invention of PTFE (polytetrafluoroethylene), sold under the trademark Teflon.
- **Improvements.** You may create a novel use for an existing invention—like the inventor who figured out a method of removing prairie dogs from their homes using a powerful vacuum. Patent experts refer to new uses as a separate patent class but the USPTO categorizes such inventions in the process category. However, if the underlying invention is still protected under patent law, you may not be able to make, sell, or use your new use—unless you have authorization (in the form of a “license”) from the patent owner.

Is it novel?

We explained that your invention must differ from previous inventions or existing knowledge to qualify for a patent. The USPTO refers to existing inventions and knowledge as prior art. If your invention differs physically or operationally in some way from the prior art, you have made it over this hurdle (but not necessarily the obviousness hurdle, as we will show).

Prior art includes:

- anything in public use or on sale in the U.S. more than one year before the filing date of the patent application
- anything that was publicly known or used by others in this country before the date of invention
- anything that was made or built in this country by another person before the date of invention

- prior patents that issued more than one year before the filing date of the patent or anytime before the date of invention
- prior publications dated more than one year before the filing date of the patent or anytime before the date of invention, or
- U.S. patents that have a filing date prior to the date of invention. The effective date of a patent that is based on a provisional patent application is the date the provisional patent application is filed.

You can research prior art in many ways and we describe how to do it in the Nolo books, *Patent Pending in 24 Hours* and *Patent It Yourself*. You can begin your searching online using the USPTO's free database (go to www.uspto.gov and click "Patents," then click "Search Patents"). You can also use Google to search patents. Start at www.google.com/patents.

Is it something that is not obvious to other inventors?

All inventions must meet a requirement of nonobviousness. To figure out whether your invention meets this test, you have to consider whether people working in the field would consider the invention obvious. Albert Szent-Gyorny, who discovered Vitamin C, summed up this hurdle when he said, "Discovery consists of seeing what everybody has seen and thinking what nobody has thought." Some measures of nonobviousness are:

- the invention has enjoyed commercial success
- there has been a need in the industry for the invention
- others have tried but failed to achieve the same result
- the inventor did what others said could not be done
- others have copied the invention, or
- the invention has been praised by others in the field.

Submitting Your Provisional Patent Application

If you're confident about proceeding, Nolo can help you apply for your provisional patent application. We will ask you a series of questions and you type in your answers. If you have questions, plain-english legal help is available every step of the way. At the end of the interview, you upload your drawings, review your answers, and submit your application—Nolo takes care of the rest.

To complete Nolo's Online Provisional Application, you'll need drawings and some basic information for your specification—that's the written portion of your provisional patent application. Here are details about preparing your drawings and your specification:

Drawings

In order to get started you'll need basic drawings that show—in conjunction with your written explanation—how to make and use the invention. The drawings must be submitted to the USPTO in black and white. If you upload color drawings, Nolo will convert them to black and white prior to filing.

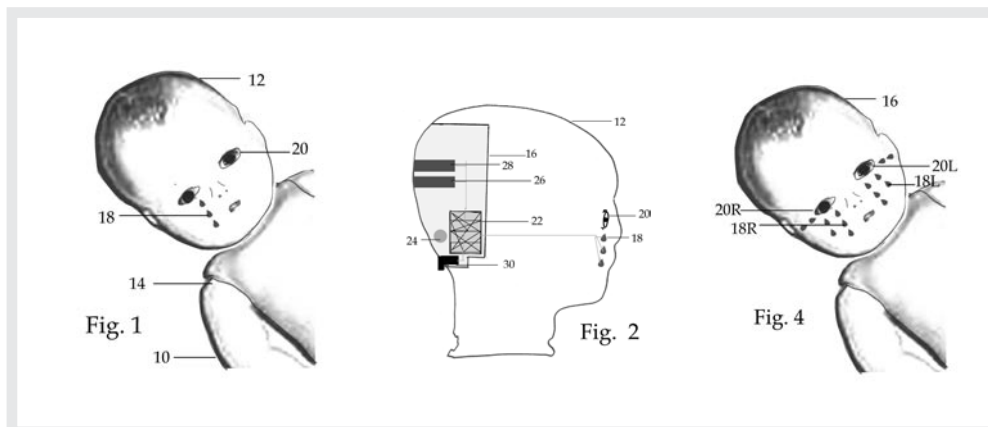
You should create your drawings before answering the questions shown below. If you have these drawings on hand as you proceed through the interview, they will also help you focus on the elements and operation of your invention, which will help you describe how it works.

Unlike the formal, stylized drawings normally seen in patent applications, you can submit informal illustrations or photographs with your provisional patent application. You can either make these informal drawings yourself or take a photograph and label it with reference numerals. Your drawings should provide various perspectives of the invention and they should be neat, accurate, and to scale. Each part or component of your invention should be numbered.

Here's an example of informal drawings prepared for a doll invention. The inventor created a doll that simulated tears using a series of LEDs (lights). The inventor prepared a list of components as follows:

10	Toy doll	22	Microchip controller
12	Doll head	24	Battery to power device
14	Doll body	26	Motion sensor
16	Cavity in doll head	28	Sound sensor
18L&R	Lines of LEDs	30	On/off switch
20L&R	Doll's eyes		

Then the inventor prepared the following drawings:



In addition, nonfigurative patent drawings, such as flowcharts, electrical schematics, and tables, can be used to illustrate inventions as diverse as chemical compounds, business methods, electric circuits, and software. Because you may have to modify your drawings as you progress through the program, it's helpful to maintain your drawings or photos in a digital format.

Remember, the USPTO will not accept color drawings, so if you upload color drawings, Nolo will convert them to black and white prior to filing.

You can also review thousands of formal drawings online at the USPTO website (www.uspto.gov). Under "Patents," choose "Search Patents."

The Specification

To prepare your specification, we will ask you the following questions:

- What is the name of your invention?
- Who are the inventors?
- Was the invention created under a government contract?
- What does your invention accomplish?
- What drawing figures will you include?
- What are the parts or components?
- How do the components connect?
- How does the invention operate?
- Are there other ways to construct your invention?
- Can your invention be used in more than one way?

You probably know your invention better than anyone else and these nine questions should not be too difficult to answer. You'll find it most helpful to keep your invention drawings nearby, especially as you answer the final four questions. Your answers to these questions are especially important because they describe in detail the structure of your invention, how it operates and any alternatives. These answers will describe how to make and use your invention—the essential elements of the provisional patent application.

Before answering some of these questions, you may wish to write and save your answer in a word processing document. That way you can cut and paste your responses to the program (and have them backed-up in the event of an unexpected problem).

Okay. You're ready to go! Good luck!

What's the Difference: Utility Patents, Design Patents, Copyright, Trade Secret and Trademark

If, after reviewing this guide, you conclude that a patent isn't for you, don't give up; there may be other forms of legal protection for your idea—including copyright, design patent, trade secret, or trademark law. The chart below provides a comparison. You can find more information about each form of protection (and how to acquire it) at the Nolo website, www.nolo.com.

	What's Protected?	Examples	Protection lasts for:
Utility Patent	Inventions, including machines, compositions, processes, articles of manufacture, and improvements on inventions	iPod, chemical fertilizer, process of manipulating genetic traits in mice, ironing board	20 years from the date of filing regular patent application
Design Patent	Ornamental (non functional) designs for useful objects	Unique shape of electric guitar, design for floor lamp	14 years
Copyright	Books, photos, music, recordings, fine art, graphic images, videos, films, architecture, computer programs	<i>The DaVinci Code</i> , (book and movie), Andy Warhol prints, Michael Jackson's <i>Thriller</i> (music recording, artwork and video), architectural plans for Trump Tower, Microsoft <i>Windows</i> operating system	The life of the author plus 70 years (or for some works, 95 years from first publication)
Trade Secret	Formulas, methods, devices or compilations of facts or any information which is confidential and gives a business an advantage	<i>Coca-Cola</i> formula, survey methods used by professional pollster, buying habits of ethnic groups, new invention for which patent application has not been filed	As long as information remains confidential and functions as a trade secret
Trademark	Words, symbols, logos, designs, slogans or devices that identify and distinguish products or services	<i>Coca-Cola</i> name and distinctive "wave" logo, <i>Good Housekeeping</i> seal, <i>Pillsbury</i> doughboy character	As long as business continuously uses trademark in connection with goods or services